



## VILLAGE OF ISLAND LAKE

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1<sup>st</sup> Place Winner



Big Island Restoration Project

February 27<sup>th</sup>, 2014

### A Special Note from the Lake Management Committee

This winter has been one of the most extreme in Midwest history with record cold temps and record snowfall. It's taking its toll on many lakes across the region and Island Lake is no exception for Mother Nature.

More and more reports are coming into the Health Department and the Illinois Department of Natural Resources about fish die offs in lakes across Illinois and Wisconsin. After receiving information from the Health Department, we drilled some holes in the ice and dropped a camera into the water. It was confirmed.... We have had some winter fish kill from what we observed.. We also tested the dissolved oxygen levels (2-27-14). Some were concerning at only 1.6PPM. However other areas of the lake were better at 5.8PPM. With dissolved oxygen levels, 10PPM is the best.

(You can find more information soon on dissolved oxygen levels by clicking the Lake Management link)

#### A special thank you to the Lake County Health Dept. for assisting so quickly to get dissolved oxygen levels.

Winter Die Offs are natural, and we wont know how bad the die off is until spring. Hopefully it is minimal, however, when a lake experiences a winter kill, you will most likely see dead fish after the ice moves out in spring as a result.

#### **What is Winterkill?**

It is the most common type of fish kill. In most cases the dead fish result from a normal process known as "winterkill." When snow and ice cover a lake, they limit the sunlight reaching aquatic plants. The plants then cut back on the amount of oxygen they produce. If vegetation dies from lack of sunlight, the plants start to decompose, which, in turn, uses oxygen dissolved in the water. If oxygen depletion becomes severe enough, fish die. Winterkill can occur during especially long, harsh, cold snowy winters, such as the winter we have just experienced. Winterkill potential is worse in winters with abundant or early snowfall. Lower autumn water levels increase the probability and severity of winterkill. Early ice-on and late ice-out dates also increase the winterkill potential. Shallow, soft-bottom lakes (such as ours) are more winterkill-prone than deeper, hard-bottomed lakes. We have all of these ingredients for Mother Natures Winterkill recipe and we anticipate a late ice-out.

The only long-term solution / prevention for winterkill lakes is to reverse the natural process of filling and enrichment (also known as eutrophication). Dredging or sucking bottom sediments can increase the volume of water, reduce the nutrient-rich sediment, and reduce the growth of nuisance plants. However, such projects are extremely costly, require a site for disposing of the bottom material, and will most likely require permits from the Army Corps of Engineers. The Lake Management Committee has started looking into the process.

Residents (especially lakeside residents) can help slow down the rate of eutrophication by keeping all types of yard waste out of the lake and most importantly use phosphate free fertilizer. Although you may live blocks and blocks away from the lake, the phosphorus that is found in many fertilizers can travel through our watersheds easily and make its way to our waters.

(You can find more information soon on Phosphate free fertilizers by clicking the lake management link)

We will keep you posted as we get more information.

If you have any questions, please email [Ken.Wick@VOISLK.com](mailto:Ken.Wick@VOISLK.com)

Sincerely,

The Island Lake, Lake Management Committee (LMC).

***Focusing on the health, viability and enhancement of Island Lake for future generations.***